

COLOUR LASER PRINTERS

INTRODUCTION

Mono laser printers are fast, cheap to run and the obvious choice if you print lots of text documents. Today, though, you're just as likely to want to print webpages, presentations and photos, all of which look their best printed in colour.

Colour laser printers used to be expensive, but recently competition has driven prices lower than ever. This test includes two printers that cost less than £200, one of which costs just £155. Better still, even the cheapest printers can also be inexpensive to run.

This month we've gathered nine of the most affordable colour laser printers. We've put them through a range of tests to gauge their speed, quality and ease of use, and we've looked in detail at how much they cost to run. However much you want to print and spend, we'll help you find the perfect printer.

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Brighten up your home PC or small office with our round-up of colour laser printers from as little as £155. You'll be green with envy if you don't snap up one of these beauties

LIVING COLOUR

Choosing a... Colour Laser Printer

Two of the printers in this test cost less than £200 including VAT, and the most affordable costs an amazing £155. Colour laser printers are a smaller investment than ever, but it still pays to find one with the right qualities and features. If you intend to print a lot of colour pages, for example, look for one with low colour running costs and high colour print speeds rather than one that's best at delivering reams of black text.

GET SET

All the printers in this test are affordable models designed for use in the home or a small office. As such, none is particularly big compared with an office laser printer, but they're all considerably larger than an inkjet. You'll need a strong, flat surface on which to place your printer, with plenty of room for ventilation and for opening any paper trays or access panels.

The most affordable printers connect to your PC via USB and are typically quick and easy to set up, but you'll need to use the printer-sharing system built into Windows if you want other users on a home or office network to print. Seven of the printers also have an Ethernet interface. They're ideal if you need to share your printer on a small office network, but network printers aren't always as easy to configure.

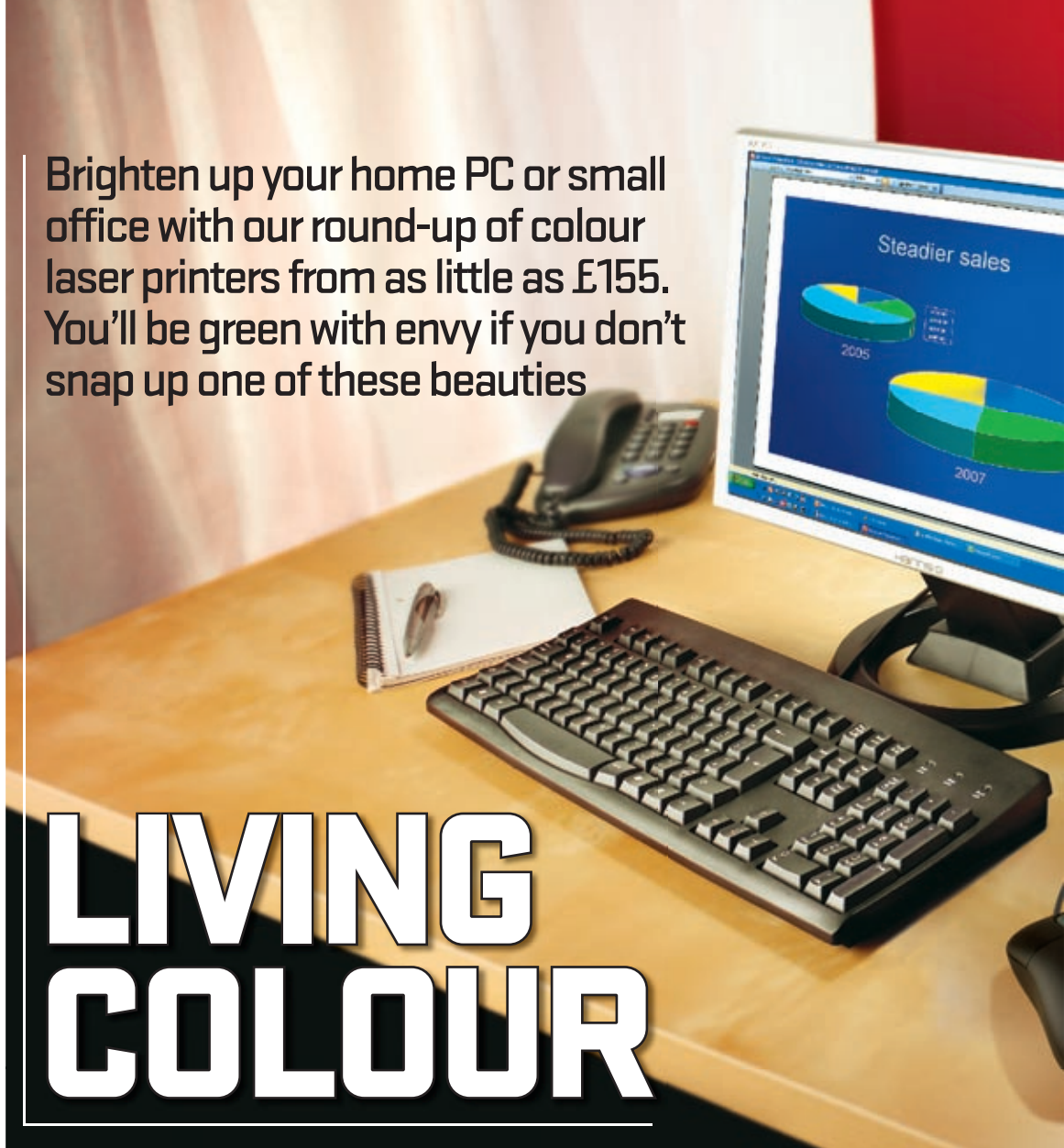
Whether you buy a USB or network printer, you'll need to budget for a suitable cable, as none is included. However, all the printers in this test arrive with the necessary consumables. You may need to fit them yourself, but this isn't too hard. Follow the instructions and remove any packing material before printing.

LABOUR MARKET

Colour laser printers are complex devices and require anything from four to 10 different consumables. At some point you'll probably need to replace the printer's toner cartridges. These contain the coloured powder that a laser printer bonds to the page when printing.

In this test, all but the Canon and HP printers arrive with starter toners that last for fewer pages than full-capacity replacements. You may need to replace these after as few as 500 pages, but unless you print in large volumes they're likely to last for some months. When buying replacements we recommend that you shop around online for the lowest price on genuine branded supplies, and always choose more expensive high-yield supplies. These are better value and will reduce the time you spend maintaining your printer.

In our lab tests, we calculate running costs in two ways. We work out a simple cost-per-page figure for





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mono and colour prints by dividing the cost of each consumable by the number of pages the manufacturer says it will print. Totalling the figure gives a quick indication of the ongoing costs, but it doesn't allow for the consumables that are supplied with the printer.

Our table on page 100 also shows estimated total ownership costs. These include the cost of buying the printer and the consumables you'd need to print a given number of pages. They give a better indication of a printer's true running cost over a period of time, and show that some cheap printers aren't as good value as they seem.

SPEED DEMON

As our table shows, there are huge differences in speed between the printers on test. Devices that lay down black, cyan, magenta and yellow toner in one pass can print colour pages as quickly as they print in mono. Others require four separate passes, one for each colour, so they print colour pages at a quarter of their mono speed.

Print quality also varies between printers, and this has little to do with specifications. To create a full range of colours from a palette of just four, printers use a process known as dithering, which intersperses small dots of colour on the page. The dots are small enough to trick the eye into seeing an area of solid colour, but in some printers it's possible to see a regular, artificial pattern in the results. Our reviews explain which

printers create the most lifelike photos and the smartest business documents.

EXTRA, EXTRA

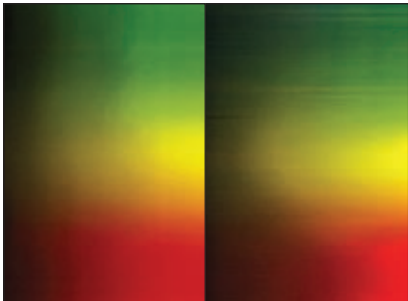
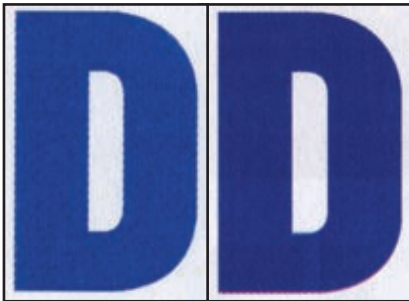
If you often print on special paper or envelopes, look for a printer with a second multipurpose slot for them. If you want to print automatically on both sides of each sheet (duplex printing), buy a printer that has this feature as standard, such as Lexmark's C530dn, or one that can be

upgraded. There's often little scope to upgrade a budget printer, but five of the printers here can accept an extra paper tray.

Finally, make sure the printer comes with drivers for your operating system. Windows Vista has only just been released, and not all printers come with Vista drivers. In most cases you can visit a support website to download suitable drivers, but our table lists the operating systems each printer supported as we went to press.

Look at the small print

Comparing colour prints

▲ Not all colour lasers excel at printing graphics, as these colour tests show. Epson's AcuLaser C1100 (left) is one of the best, reproducing a wide range of subtle shades. Samsung's CLP-600N (right) is crude in comparison

▲ Colour lasers can have trouble printing blocks of colour with smooth outlines. There's a slight jaggedness in the verticals from Canon's LBP-5000 (left), and the cyan and magenta are not aligned in this print from Oki's C3400N (right)



CANON LaserShot LBP-5000

★★★★★

£155 inc VAT

At just £155, Canon's LaserShot LBP-5000 is the cheapest colour laser printer we've ever reviewed. Unlike most entry-level colour laser printers it's a single-pass device, but it produces mono or colour output at a maximum speed of only eight pages per minute (ppm).

The LBP-5000 is fairly compact, and arrives with its consumables fitted. The installation program is fast and painless, despite a warning that you can't stop it once it has started.

Though the LBP-5000's rated print speed is modest, the printer came very close to it in our timed tests. In colour it comfortably outpaced even Epson's AcuLaser C1100, which is the fastest of the four-pass printers in this group. We were quite impressed with the results, too. Black text had very crisp outlines and no visible stepping. We saw serrations in the vertical outline of large, blue headline text, though.

Colour accuracy was much better than we've seen from recent Canon colour lasers, but photos were a little cool and some prints looked distinctly blue. Colour graphics were very good, although in some solid colour fills we could make out the regular, grid-like pattern of the printer's dithering. It excelled at producing subtly different shades in colour photos and our presentation slides, but our black-and-white test photo showed unnaturally high levels of contrast.

The LBP-5000's 250-sheet input cassette and single-sheet multipurpose feeder are both marked with the correct orientation for paper and envelopes. You have to insert single envelopes pretty far into the multipurpose slot, but they print immaculately. This is an easy printer to maintain, and it's inexpensive to run, particularly when printing in colour.

VERDICT

The LBP-5000's slow mono printing means it isn't ideal for long text documents: the AcuLaser C1100 was three times faster on our Draft speed test. However, its low price and reasonable running costs make it a good choice if you want a cheap and rapid colour printer.

SUMMARY

- ✓ Affordable to buy and run
- ✓ Fast, good-quality colour printing
- ✗ Slow mono prints

HOME/SMALL OFFICE COLOUR LASER 600x600dpi,
8.0ppm mono, 8.0ppm colour, USB Hi-Speed interfaces
PART CODE 0568B008AA
SUPPLIER www.amazon.co.uk
DETAILS www.canon.co.uk



KONICA MINOLTA Magicolor 2500W

★★★★★

£177 inc VAT



Konica Minolta's Magicolor 2500W costs little more than Canon's LaserShot LBP-5000, but the two printers are very different. The 2500W is a compact four-pass device, with only a single, basic paper input. It takes four toner cartridges and a single drum, all of which arrive already in place. You need only open a few compartments and remove some packing material before the printer is ready to go.

Like most of the printers here, the 2500W comes with starter toners that don't last as long as the high-yield replacements you can buy. Their 1,500-page yield isn't too stingy, though, and the high-yield supplies' 4,500-page yield is greater than that of most printers here. This is a fairly cheap printer to own, particularly if you print lots of black text.

The 2500W has only one paper input that can store no more than 200 sheets. You'll need to unload it to use envelopes or a stock of headed paper, and there are no orientation markings to help you load either correctly. You'll probably want to address envelopes by hand anyway, as this printer's driver has no envelope paper type and printing envelopes crumples their edges.

Fortunately, the 2500W is far more competent when printing on paper, delivering high-quality black text at nearly 19ppm in our tests. It's far slower when printing colour, but came quite close to its 5ppm rated speed in our mixed-colour speed test.

As with the LaserShot LBP-5000, dither patterns are fairly easy to make out in some areas of the 2500W's colour prints, but they're not too obtrusive and the quality is otherwise great. Colours in our test photos were natural and accurate. The shading wasn't always as well controlled as in the Canon printer's results, but our black-and-white image was far better.

VERDICT

This is a simple printer with basic paper handling and no scope for upgrades. It's inexpensive, though, and even in heavy use it should prove quite affordable. As long as you're in no hurry for colour prints, it's a great choice.

SUMMARY

- ✓ Affordable to buy and run
- ✓ Good-quality mono and colour printing
- ✗ Basic paper handling

HOME/SMALL OFFICE COLOUR LASER 600x600dpi,
20.0ppm mono, 5.0ppm colour, USB Hi-Speed interfaces
PART CODE A00V021
SUPPLIER www.amazon.co.uk
DETAILS www.konicaminoltaprinters.co.uk

COLOUR LASER PRINTERS



SAMSUNG CLP-300N

★★★★★

£219 inc VAT

Samsung says the CLP-300N is the smallest colour laser in its class, and we've certainly never seen a smaller one. It's also lighter and quieter than any other printer in this group, so it's well suited for use in the home.

We reviewed the standard version of this printer in *What's New, Shopper* January 2007. This network model is the most affordable printer with an Ethernet port here. We plugged it into our Labs network and selected the typical network installation in Samsung's excellent install program, which detected and installed the printer before prompting us for a test page. The only tricky part of the process was working out how to extend the printer's single adjustable paper tray to A4 paper size.

Although its noise rating is only one decibel less than those of other printers here, the CLP-300N seems much quieter when printing colour and mono pages. This may be partly due to its relaxed speed. It has the most leisurely mono print speed of any four-pass printer here, and was the slowest overall when printing in colour. We noticed that it was particularly slow when printing our high-resolution test photos, taking nearly two and-a-half minutes to produce six 6x4in prints on three A4 pages.

The CLP-300N produced decent-quality black text, but under magnification we could see that outlines were less crisp than we would like. Its colour prints weren't particularly impressive. The outlines of solid colours, such as coloured headline text, seemed poorly focused where different colours weren't quite aligned. Smaller grey and coloured fonts seemed granular and were a little hard to read.

Many of our test photos appeared somewhat washed out. Our black-and-white photo and a couple of our regular tests printed with far too much contrast and we noticed a lack of subtlety in some areas of dark shading.

VERDICT

The CLP-300N is affordable for a network colour laser, quiet and unusually easy to use. Its print quality and speed are underwhelming, however, and high running costs make it a poor choice if you print lots of pages.

SUMMARY

- ✓ Small and quiet; cheap for a network printer
- ✗ High running costs, particularly for colour
- ✗ Basic paper handling

HOME/SMALL OFFICE COLOUR LASER 600x600dpi,
16.0ppm mono, 4.0ppm colour, USB and 10/100 Ethernet
interfaces
PART CODE CLP-300N/XEU
SUPPLIER www.misco.co.uk
DETAILS www.samsung.co.uk



EPSON AcuLaser C1100

★★★★★

£282 inc VAT

In the world of colour lasers, Epson's AcuLaser C1100 has been around for a long time. It has been on *Shopper's* 'Also consider...' list since we first reviewed it in April 2005, and it won Best Printer in our 2006 awards issue (*Shopper* December 2006). Although it's bigger than printers such as Konica Minolta's Magicolor 2500W it's still fairly basic, with just a single 180-sheet paper input.

Epson ships the C1100 without its toners in place, so it requires more setting up than the other printers here. The printer has a carousel, which has to rotate into position before you can insert each of the 1,500-page starter supplies. High-yield replacements are comparatively affordable and last for 4,000 pages, so the C1100 is one of the cheapest printers here to run.

The C1100 is a four-pass printer, so it can't keep up with the single-pass devices in this test when printing in colour. Its quoted speed for mono prints is the second-highest here, though, and it was only 3ppm slower than Dell's Colour Laser 3110cn in our tests. It was also particularly quick to print the first copy of our formal letter, even when waking up from its sleep mode.

We've always been impressed with the quality of the C1100's colour output, but we struggled to get the best results from it in this test. Colours were less accurate than we expected with the driver's defaults, so we had to experiment with the settings to match the high quality we've seen before. We were finally happy with our results using the Vivid Colour setting. Black text was fine at any quality.

VERDICT

The C1100 produces great results if you don't mind experimenting with the driver. Although it's not too fast in colour, it prints black text very quickly. Reasonable running costs make it an affordable printer to own, particularly if you'll print in high volumes, but its price hasn't fallen much since it was new. These days it seems expensive compared with the Canon and Konica Minolta printers, so it misses out on an award in this Labs test.

SUMMARY

- ✓ Very fast mono prints
- ✓ Great print quality
- ✗ Comparatively expensive to buy

HOME/SMALL OFFICE COLOUR LASER 600x600dpi, 25.0ppm mono, 5.0ppm colour, parallel and USB Hi-Speed interfaces

PART CODE C11C567002BY
SUPPLIER www.misco.co.uk
DETAILS www.epson.co.uk



OKI C3400N

★★★

£305 inc VAT

Strictly speaking, Oki's C3400N isn't a laser printer as it uses LED light to build the page image on its photoconductor drums. It's a single-pass device with four toners and four drums that are replaced separately. If you print more than 50,000 pages you may also need to replace the transfer belt and fuser unit, making a total of 10 consumables to change.

Even light users will get used to swapping the C3400N's toners. Its starter cartridges are rated for a stingy 500 pages and full-capacity supplies last for just 1,000 pages, so you'll need to change them fairly often throughout the printer's life.

Its high number of consumables make the C3400N potentially complex to maintain, and we also found it hard to set up. There's little in the way of physical preparation before you can start printing, but Oki's install program couldn't find the printer across our simple network. With no display you have to print a status sheet to find the printer's IP address, and we had to look in the manual to find out how. The installer completed successfully once we'd supplied it with the printer's address, but it's an unnecessary extra headache.

This is quite a fast printer, and it produces excellent text with crisp outlines even at sizes as tiny as 2pt. It's hard to spot any dithering in small colour text, which looks smooth as a result, but graphics and photos were extremely disappointing. Oki's toners give prints a consistent gloss finish, but graphics look grainy and suffer from a magenta cast that makes the colours in photos look far different from those of the original. Blue and red components were vertically misaligned in blue headline text, giving it a fine but noticeable red shadow.

VERDICT

The C3400N is a very fast colour printer for the money, but its results are poor. It's around as expensive to run as Samsung's CLP-300N, but it's far bulkier and is harder to set up and maintain. Lexmark's C530dn costs only £2 more, is cheaper to run and more highly specified. It's not much slower in colour and produces far better results.

SUMMARY

- ✓ Fast colour printing
- ✗ Poor-quality colour printing
- ✗ Expensive to run; complex to maintain

HOME/SMALL OFFICE COLOUR LASER 1,200x600dpi, 20.0ppm mono, 16.0ppm colour, USB Hi-Speed and 10/100 Ethernet interfaces

PART CODE 01184701
SUPPLIER www.amazon.co.uk
DETAILS www.oki.co.uk



LEXMARK C530dn

★★★★★

£307 inc VAT

Lexmark's C530dn costs just £25 more than the Epson AcuLaser C1100, but it has a far higher specification. It has a network port, two paper inputs and an LCD control panel. It's also the only printer in this test with an automatic duplexer, and one of only three to support the PCL and PostScript print languages.

The C530dn is easier than most printers to unpack, as long as you understand the cryptic instruction icons on the lid. Setting up involves removing plenty of packing material from around the consumables, which are already inserted. Lexmark's install program detected and installed the printer, but it added only the PostScript driver. We had to run it again to install the PCL driver and assign it manually to the correct Windows network print port.

When we first tried to print our 50-page draft document, the printer encountered a problem and continued beyond 50 pages, printing junk characters. We reset it and downloaded and installed the latest PCL driver, which cured the problem. The times in our table on page 100 were recorded using this new driver. PostScript printing was slower, but the difference was surprisingly small. Using PostScript our mixed-colour speed test took three minutes and 50 seconds, and two 10x8in photos took 58 seconds.

Print quality was good, particularly from the PCL driver, which produced more accurate colours in graphics. Solid colour fills looked consistent, with crisp outlines, and there was little obvious dithering. Photos were good, but their colours were a little under-saturated. Using the PostScript driver, colours appeared too dark, and highlights suffered from a yellow tint. The printer was unable to complete one particular very high-resolution photo test using the PostScript driver.

VERDICT

The C530dn combines brisk printing with high-quality results. Although you can't upgrade its paper inputs, it has some excellent features such as duplex printing. It's an excellent printer, but the Dell 3110cn's very cheap running costs mean it just steals the Best Buy award.

SUMMARY

- ✓ Highly specified
- ✓ Rapid, high-quality prints
- ✗ Slightly expensive when printing in colour

HOME/SMALL OFFICE COLOUR LASER 1,200x1,200dpi, 22.0ppm mono, 21.0ppm colour, USB and 10/100 Ethernet interfaces

PART CODE 0034C0161
SUPPLIER www.misco.co.uk
DETAILS www.lexmark.co.uk



HP

Colour LaserJet 2700n

★★★★★

£329 inc VAT

Like the two more expensive printers in the group, HP's Colour LaserJet 2700n uses toner cartridges that incorporate an imaging drum. Every time you add more toner, you also replace the drum. Some manufacturers claim that this ensures more consistent image quality, but we've never seen any difference in our tests. It does mean that with only four consumables this printer is easy to maintain.

The 2700n arrives with colour cartridges that should last for a respectable 3,500 pages, and a generous 6,500-page black cartridge. Occasional users may never need to replace them, but reasonable prices make this the cheapest printer for most volumes of printing.

The 2700n is fairly well specified, with a network port and PCL and PostScript languages as standard. It arrives with its consumables in place, but they must be removed, prepared and refitted before you can print. This is simple, and HP's installer is quick and painless.

The 2700n is disappointingly slow when printing colour. Its 4.2ppm performance in our mixed-colour test was far short of its rated speed of 14ppm, and slower than two of the four-pass devices. It isn't a remarkably quick text printer either, but it was easily the fastest in this test to warm up and begin printing after a long idle period. If you print only short, occasional jobs, you may find it faster than a quick printer with a longer warm-up time.

This printer's black text was very good, but prints with graphics were less impressive. Our black-and-white test photo was murky and had a mild magenta cast. Colour graphics were better but, with a lack of vibrancy and some inaccurate colours, not up to the standard of Lexmark's C530dn.

VERDICT

This quiet printer is easy to maintain and has low running costs. It isn't cheap to buy, but it comes with generous supplies that could in effect make it free to run for the lightest users. However, its print quality isn't especially high, and it's slow when printing in colour.

SUMMARY

- ✓ Low cost of ownership
- ✓ Easy to set up and maintain
- ✗ Disappointing colour print quality

HOME/SMALL OFFICE COLOUR LASER 600x600dpi, 20.0ppm mono, 14.0ppm colour, USB Hi-Speed and 10/100 Ethernet interfaces

PART CODE Q7825A

SUPPLIER <http://uk.insight.com>

DETAILS www.hp.co.uk



DELL

Colour Laser Printer 3110cn

★★★★★

£388 inc VAT



Despite a similar name, Dell's Colour Laser Printer 3110cn is quite different to the 3010cn we reviewed in *What's New, Shopper* December 2006. The 3110cn reviewed here is a single-pass printer, with the fastest mono speed rating in this test. It's one of the biggest and heaviest devices here, and the only one with parallel, USB and Ethernet ports.

Setting up the 3110cn takes a while, as you need to insert its consumables before you can print. This isn't much trouble, though, and Dell's installation program is one of the best. It's the only program that includes options to install a mono-only driver or require a password to enable colour printing, both of which could lower costs among network users.

This printer has a 250-sheet paper cassette and a 150-sheet multipurpose tray, but the latter is formed by folding down the printer's huge front panel and requires a lot of space at the front. You can upgrade with a duplexer or a second, 550-sheet cassette, and increase the memory to a huge 1,152MB.

Colour prints from the 3110cn are decent, but not up to the standards of the Konica Minolta, Epson or Lexmark printers in this test. PostScript prints had an over-warm tone with a consistent sheen, while PCL prints had cooler, more natural colours, but a less rich finish. Colour graphics looked far better using the PostScript driver, which proved marginally quicker than using PCL on most of our tests.

The 3110cn is a very fast text printer, peaking at 27ppm when we printed our formal letter test using the PostScript driver. Only Epson's AcuLaser C1100 came close, but the 3110cn is comfortably quicker than the AcuLaser when printing in colour.

VERDICT

The 3110cn is quick, easy to maintain, cheap to run and can easily be upgraded if your needs change. Its print quality isn't the best, but if you use the PostScript driver it's perfectly acceptable. It's great value, and our Best Buy.

SUMMARY

- ✓ Low cost of ownership
- ✓ Easy to set up, upgrade and maintain
- ✗ Disappointing colour print quality

HOME/SMALL OFFICE COLOUR LASER 600x600dpi, 30.0ppm mono, 17.0ppm colour, parallel, USB Hi-Speed and 10/100 Ethernet interfaces

SUPPLIER Dell 08709 075818

DETAILS www.dell.co.uk



SAMSUNG

CLP-600N

★★★

£410 inc VAT

Samsung's CLP-600N is the most expensive printer in this test, but its specification isn't particularly impressive. It doesn't support PCL or PostScript and has a lower duty cycle than many more affordable printers. Its 2,000-page starter toners seem stingy compared with those of the Dell or HP printers. Canon's £155 LBP-5000 has slightly more generous supplies.

Unlike the other printers in this test, the CLP-600N is arranged sideways, so that paper travels left and right as it moves through the printer, rather than forward and back. The 250-sheet paper cassette slides out at the front, but the 100-sheet multipurpose feed is at the right, and requires a lot of clearance when in use. The layout doesn't seem as space-efficient as that of a printer with both inputs on the same side.

Toners for the CLP-600N are not ready fitted. They're easy to install, but blue clouds spilled out when we opened the cyan toner's package, and the cartridge was liberally dusted. It didn't seem to be damaged, and we've never had a similar problem with Samsung's toners before, so it's likely that this was a one-off leak.

Despite a strong smell of toner during printing, there was no excess cyan toner on the prints, but their quality was still poor. This was the only printer to produce significant banding. Different colours were slightly misaligned, leaving colour shadows round the outline of colour text. Graphics were otherwise fairly good, with accurate colours, but dark regions in photos were very crudely shaded.

Only Samsung's own CLP-300N and the inexpensive LaserShot were slower than the CLP-600N when printing text, but this printer was the joint fastest to finish our mixed colour test. Despite the limited starter toners its running costs are reasonable, particularly for anyone printing medium or high volumes.

VERDICT

The CLP-600N's fast colour print speed is impressive, but it's undistinguished elsewhere and does little to justify its comparatively high price. Dell's Laser Printer 3110cn costs less to buy and run, is better specified and is faster in mono. It's a much better buy.

SUMMARY

- ✓ Very fast colour printing
- ✗ Poor colour print quality
- ✗ Expensive

HOME/SMALL OFFICE COLOUR LASER 600x600dpi, 20.0ppm mono, 20.0ppm colour, USB and 10/100 Ethernet interfaces

PART CODE CLP-600/XEU

SUPPLIER www.dabs.com

DETAILS www.samsung.co.uk



COLOUR LASER PRINTERS

	BUDGET BUY				BEST BUY				
MANUFACTURER	CANON	KONICA MINOLTA	SAMSUNG	EPSON	OKI	LEXMARK	HP	DELL	SAMSUNG
Model	LaserShot LBP-5000	Magicolor 2500W	CLP-300N	AcuLaser C1100	C3400N	C530dn	Colour LaserJet 2700n	Colour Laser Printer 3110cn	CLP-600N
Rating	★★★★	★★★★	★★★	★★★★	★★	★★★★★	★★★★	★★★★★	★★
Maximum resolution	600x600dpi	600x600dpi	600x600dpi	600x600dpi	1,200x600dpi	1,200x1,200dpi	600x600dpi	600x600dpi	2,400x600dpi
QUOTED SPEEDS									
Quoted speed, mono A4	8ppm	20ppm	16ppm	25ppm	20ppm	22ppm	20ppm	30ppm	20ppm
Quoted speed, colour A4	8ppm	5ppm	4ppm	5ppm	16ppm	21ppm	14ppm	17ppm	20ppm
Quoted warm-up time	0s	49s	0s	37s	0s	1m 19s	0s	30s	0s
Quoted time to first page, mono	20s	14s	14s	9s	10s	11s	13s	16s	20s
Quoted time to first page, colour	20s	23s	26s	17s	12s	11s	17s	17s	20s
Total quoted time to first print, mono	20s	1m 03s	14s	46s	10s	1m 30s	13s	46s	20s
Total quoted time to first print, colour	20s	1m 12s	26s	54s	12s	1m 30s	17s	47s	20s
TESTED SPEEDS									
First mono page from sleep	48s	1m 06s	43s	32s	51s	1m 18s	14s	37s	1m 04s
First colour page from sleep	32s	55s	52s	39s	52s	1m 18s	20s	46s	1m 03s
Test 1, 50-page text document	6m 19s (7.9ppm)	2m 42s (18.5ppm)	3m 31s (14.2ppm)	2m 5s (24.0ppm)	2m 44s (18.3ppm)	2m 34s (19.5ppm)	2m 31s (19.9ppm)	1m 51s (27.0ppm)	2m 50s (17.6ppm)
Test 1, duplex, 50-page text document	N/A	N/A	N/A	N/A	N/A	3m 37s (13.8ppm)	N/A	N/A	N/A
Test 2, letter, time to first page	22s	13s	13s	9s	12s	13s	24s	11s	22s
Test 2, letter, total time for 50 copies	6m 18s (7.9ppm)	2m 39s (18.9ppm)	3m 27s (14.5ppm)	2m 15s (22.2ppm)	2m 41s (18.6ppm)	2m 33s (19.6ppm)	2m 39s (18.9ppm)	1m 49s (27.5ppm)	2m 49s (17.8ppm)
Test 3, mixed colour	3m 16s (7.3ppm)	5m 33s (4.3ppm)	6m 27s (3.7ppm)	5m 6s (4.7ppm)	2m 10s (11.1ppm)	3m 9s (7.6ppm)	2m 18s (10.4ppm)	2m 10s (11.1ppm)	2m 50s (17.6ppm)
Test 4, 10x8in photos	40s	49s	1m 51s	45s	33s	39s	1m 18s	1m 31s	45s
Test 5, 6x4in photos	51s	1m 01s	2m 23s	1m 09s	40s	49s	1m 32s	51s	1m 09s
PHYSICAL AND ENVIRONMENTAL									
Standard interfaces	USB Hi-Speed	USB Hi-Speed	USB, 10/100 Ethernet	Parallel, USB Hi-Speed	USB Hi-Speed, 10/100 Ethernet	USB, 10/100 Ethernet	USB Hi-Speed, 10/100 Ethernet	Parallel, USB Hi-Speed, 10/100 Ethernet	USB, 10/100 Ethernet
Optional interfaces	10/100 Ethernet	None	None	None	None	802.11g wireless, Gigabit Ethernet	802.11g wireless	802.11g wireless	802.11g wireless
Dimensions (HxWxD)	374x407x365mm	341x430x395mm	265x390x344mm	445x445x439mm	290x376x478mm	484x440x512mm	400x400x450mm	470x400x485mm	445x465x465mm
Weight	16.0kg	18.9kg	13.6kg	28.0kg	21.0kg	25.9kg	27.1kg	24.0kg	28.5kg
Noise	50dB(A)	52dB(A)	49dB(A)	53dB(A)	51dB(A)	53dB(A)	53dB(A)	52dB(A)	50dB(A)
Duty cycle (sheets per month)	Not stated	35,000 pages	24,200 mono/6,050 colour pages	45,000 pages	35,000 pages	65,000 one-time maximum	55,000 pages	60,000 pages	35,000 pages
Power consumption printing	769W max, 207W average	1,100W max, 600W mono average, 450W colour average	300W average	782W max, 257W mono average, 176W colour average	980W max, 400W typical	410W average	385W average	420W average	400W average
Power consumption sleep mode	11W	5W	17W	16W	14W	17W	1W	28W	35W
PAPER HANDLING									
Maximum paper size	A4/legal	A4/legal	A4/legal	A4/legal	A4/legal, custom length up to 1,200mm	A4/legal	A4/legal	A4/legal	A4/legal
Maximum paper weight	Not disclosed	200gsm	163gsm	210gsm	203gsm	218gsm	200gsm	215gsm	163gsm
Standard paper inputs (capacity)	2 (251)	1 (200)	1 (150)	1 (180)	2 (251)	2 (350)	2 (350)	2 (400)	2 (350)
Maximum paper inputs (capacity)	3 (501)	1 (200)	1 (150)	2 (680)	2 (251)	2 (350)	3 (850)	3 (950)	3 (850)
Output tray capacity	125 sheets	200 sheets	100 sheets	250 sheets	150 sheets	250 sheets	250 sheets	250 sheets	250 sheets
Duplex	N/A	N/A	N/A	C12C802191, £161	N/A	Yes	N/A	£170	N/A
GENERAL									
Technology	Single-pass colour laser	Four-pass colour laser	Four-pass colour laser	Four-pass colour laser	Single-pass colour LED	Single-pass colour laser	Single-pass colour laser	Single-pass colour laser	Single-pass colour laser
Language(s)	Host-based	Host-based	Host-based	Host-based	Host-based	PCL5c, PCL6, PostScript 3, PPDS, PDF 1.5, xHTML	PCL5c, PCL6, PostScript 3	PCL5c, PCL6, PostScript 3	Host-based
Supported operating systems	Windows 98/Me/2000/XP/Server 2003, Mac OS X 10.2.8 or above	Windows 98 SE/Me/2000/XP/Server 2003, XP driver works with Vista, certified driver to follow	Windows 98/Me/2000/XP/Server 2003/Vista, Mac OS X 10.3-10.4, various Linux versions	Windows 95/98/Me/NT4/2000/Server 2003/Vista, Mac OS X 9.x, OS X 10.1.2 or above	Windows 98/Me/NT4/2000/XP/Server 2003, Mac OS 9, Mac OS X PowerPC 10.2 or above, OS X Intel 10.4.4 or above	Windows 98 SE/Me/NT4/2000/XP/Server 2003/Vista, Mac OS 9.x, Mac OS X, Citrix MetaFrame, various Linux, Novell, UNIX and other OS support	Windows 2000/XP/Server 2003/Vista, Mac OS X 10.2.8, 10.3, 10.4	Windows NT4/2000/XP/Server 2003/Vista, Mac OS X, UNIX (Solaris 10, HP-UX11i), Linux (Red Hat 8/9, SuSE 9, TurboLinux 10)	Windows 98 SE/Me/NT4/2000/XP/Server 2003, Mac OS X 10.3-10.4, various Linux versions
Memory, standard (max)	8MB (8MB)	32MB (32MB)	64MB (64MB)	32MB (256MB)	32MB (288MB)	128MB (640MB)	64MB (320MB)	128MB (1.13GB)	32MB (32MB)
Other features and options	None	None	None	None	None	None	Three-year next-business-day onsite warranty UE195E, £164	Onsite warranty extensions: two years £93, three years £128, four years £163, five years £196	None
PRICE AND WARRANTY									
Street price including VAT	£155	£177	£219	£282	£305	£307	£329	£388	£410
Price per mono A4 page including VAT	1.79p	1.42p	2.34p	1.39p	2.45p	1.60p	1.15p	0.95p	1.56p
Price per colour A4 page including VAT	6.80p	7.21p	10.04p	6.56p	9.29p	7.30p	6.21p	4.94p	6.61p
Price for second paper cassette including VAT	250-sheet PF-92, £129	N/A	N/A	500-sheet C12C802181, £169	N/A	N/A	500-sheet Q5985A, £253	550-sheet £214	500-sheet CLP-S600A, EN/A
Capacity of supplied black toner (pages)	2,500 pages	1,500 pages	2,000 pages	1,500 pages	500 pages	1,500 pages	6,500 pages	5,000 pages	2,000 pages
Capacity of supplied colour toners (pages)	2,000 pages	1,500 pages	1,000 pages	1,000 pages	500 pages	1,500 pages	3,500 pages	4,000 pages	2,000 pages
Capacity of supplied drum(s) (pages)	Replaced with toner	45,000 mono/11,500 colour	20,000 mono/12,500 colour	42,000 mono/10,500 colour	15,000 per colour	20,000 pages	Replaced with toner	Replaced with toner	Replaced with toner
Estimated total ownership cost, three years' light use*	£336	£512	£503	£541	£560	£578	£329	£388	£676
Estimated total ownership cost, three years' medium use**	£606	£565	£891	£629	£941	£920	£621	£859	£777
Estimated total ownership cost, three years' heavy use***	£2,230	£2,279	£3,128	£2,044	£3,094	£2,523	£1,863	£1,955	£2,296
Warranty duration and terms	One year	One year	One year	One year	One year	One year	One year	One year	One year
Supplier	www.amazon.co.uk	www.amazon.co.uk	www.misco.co.uk	www.misco.co.uk	www.amazon.co.uk	www.misco.co.uk	http://uk.insight.com	Dell 08709 075818	www.dabs.com
Details	www.canon.co.uk	www.konicaminolta.com	www.samsung.co.uk	www.epson.co.uk	www.oki.co.uk	www.lexmark.co.uk	www.hp.co.uk	www.dell.co.uk	www.samsung.co.uk
Part code	05688008AA	A00V021	CLP-300N/XEU	C11C567002BY	01184701	0034C0161	Q7825A	None	CLP-600N/XEU

*Light use = 4,000 mono and 2,000 colour pages **Medium use = 10,000 mono and 5,000 colour pages ***Heavy use = 40,000 mono and 20,000 colour pages

Labs verdict Colour laser printers

This test shows that even the cheapest colour laser printers can be good value. Canon's LaserShot LBP-5000 is the most affordable here, but only two other printers – which cost twice as much – arrive with higher-capacity toners. Konica Minolta isn't quite as generous with the £177 Magicolor 2500W, but its long-term running costs are similar and it produces even better prints. It's great value, and wins our Budget Buy award.

With a budget of £300 or more you're spoilt for choice. HP's Colour LaserJet 2700N

isn't particularly fast and it doesn't produce perfect colour prints, but it's easy to set up and maintain and extremely cheap to run. Lexmark's C530dn costs slightly less to buy and has useful features such as duplex printing. It's fairly fast and delivered some of the best prints in this test, but it's not cheap to run.

If you can stretch your budget to £387, Dell's Colour Laser 3110cn is the best choice. It prints quickly in colour and is even faster when churning out long text documents. Although its print quality isn't the best here, it delivered



KONICA MINOLTA
Magicolor 2500W
★★★★



DELL Colour Laser
Printer 3110cn
★★★★★



competent results in all our tests. It's very cheap to run, has lots of scope for upgrades and is great value. It's our Best Buy.